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EVALUATION-- WHAT IT IS

1. Definitions of Evaluation

The purpose of evaluation is to keep us from "jumping" to conclusions. It is to decrease our error in making decisions. It is to provide a factual basis for drawing conclusions and making sound judgments.

The dictionary says evaluation means "to appraise carefully." Evaluation is derived from the Latin word "valeo" meaning "to value." Our present day word "value," meaning worth or quality of something, comes from it. To an extension worker evaluation means determining the values of his teaching. Did he achieve the results he expected to achieve? Did he use the most effective means of obtaining those results? How can his work be improved to accomplish more with the same effort?

2. Everyday Use of Evaluation

Evaluation is something you do every day of your life. You finish a meal and immediately you evaluate it. You think or say how good or bad it was. You even go further than evaluating the result, you consider what was especially good or especially poor about it. The meat could have been cooked longer and the potatoes were cold. The process of evaluation goes on in our minds whether we are aware of it or not.

When you read a book you always have a reaction to it. It may have been a very interesting book and you recommend it to your friends. Some books leave you "cold" while others are so uninteresting that you do not even finish them.

You have just finished a meeting and you are driving home in your car. Your thoughts are on the meeting. "It was a very good meeting," or "It was the poorest meeting ever held," or "It was an average meeting but pretty good." You may go further in your evaluation. "Why was the meeting good, bad or indifferent?" And you can see some of the reasons. You know what they are because you observed - you have the facts, or at least some of them. Your conclusions and your judgments are no better than the facts you have. Through your observations you have gathered facts and thereby made judgments. Usually, however, we do not have enough facts and even if we do we may not follow good rules of evaluation that will enable us to make sound conclusions and judgments. The purpose of evaluation is to help do that.

3. Purposes of the Evaluation Course

It is clear that there are various degrees of evaluation - from the everyday passing of judgments to rigorous scientific research. The purpose of this

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course is not to develop a group of extension research workers. It is designed, rather, to help each of you evaluate your own work more accurately thereby gaining insights that will make your efforts more successful, more satisfying, and more rewarding to you. This is the main objective of the course. It can, in turn, be divided into more specific objectives, some of which are as follows: The course aims to help you:

1. To know whether you are accomplishing what you set out to do in your extension teaching.
2. To determine the progress you have made with any job or activity and where you need to make improvements and adjustments.
3. To establish "bench marks" from which progress can be measured.
4. To find out more accurately how successful certain methods or activities have been.
5. To see that evaluation is an essential part of a teaching plan and can make execution of the plan more successful.
6. To become acquainted with the process and steps involved in extension evaluation.
7. To develop those steps in a pattern of thinking that can be used in every day evaluation.
8. To participate more effectively in extension research projects.
9. To learn how to obtain more accurate and dependable information for progress reports to the public.
10. To gain personal satisfaction from tangible evidence of accomplishment.

These then are the ten objectives or points you can use to judge what you have learned in the course and whether your time and money were profitably spent. In a sense they constitute a score card. By now you have probably realized that each of the above ten objectives can in turn be broken down into still more specific objectives. This process of breaking down general objectives into more specific objectives and clarifying objectives will be discussed more fully later in the course.

4. Tolerable Error in Evaluation

Human beings make mistakes. Each of us makes errors in judgments and conclusions. Evaluation is to reduce the size of the errors, to make more accurate judgments - at least to the point of practical usefulness.

Even in measurement, which is a very accurate method of evaluation (or of getting information upon which to base an evaluation), there is always an error.

Suppose our objective is to find the length of this room. We may say, "That's simple. Get a yardstick and measure it." Suppose you do so and you find that it is 24 feet 5 inches long. That is easy enough, but is it 24 feet 5 inches long? So you measure it again and you are not so sure. After three or four such measurements you decide that for your purposes 24 feet $5\frac{1}{2}$ inches is accurate enough. In the meantime, you have discovered that there was always a slight error each time you laid down the yardstick. You did your best to correct that by putting a small pencil mark at the end of the yardstick but even so you could not be perfectly accurate; and then too the pencil marks have width which is difficult to account for.

By this time you are about ready to let someone else measure the room. Whereupon you find that their measurements differ from yours and from each others. Which measurement is correct? Probably none are perfectly correct. Each has an error more or less. You worry for a minute and then ask yourself, "How accurate a measurement do I really need?"

This illustration is extreme, of course, but it is cited as an example that there is an error in all evaluation and that the size of the error or the "tolerable error" will depend upon the purpose or use of the measurement or evaluation.

Suppose you find through a careful survey that 45% of the dairy farmers in your county have carried on recommended pasture improvement practices and that the error is 5%. You could truthfully say that "Nearly one-half the dairy farmers in your county have carried on recommended pasture improvement practices." This degree of accuracy is probably sufficient for your purposes and would not be misleading to your audience. The error of 5% means that the figure might be as low as 40% or as high as 50%.

If, however, the error were 20%, the figure might be as low as 25%, ($45\% - 20\% = 25\%$) or as high as 65%, ($45\% + 20\% = 65\%$). The error is large. Even so it would not be misleading to say that "at least one-fourth of the dairy farmers in your county have carried on recommended pasture improvement practices."

Suffice to say at this point that evaluation or measurement always involves some error and our job is to reduce the error to a point where this error is insignificant for practical use and thereby our conclusions won't mislead us or others.

In this course we will discuss the points where the errors can "creep in" - and sometimes "walk in" and will present methods for preventing these errors from being introduced.

5. Degrees of Evaluation

Up to this point, it is clear that there are degrees of evaluation, from everyday observations to rigorous scientific research. For the purposes of this course and the use by extension agents, the various degrees may be

divided into three groups - (1) everyday observations, (2) informal studies, and (3) formal studies. The three groupings are described as follows:

Everyday Observations

This is the everyday evaluation of our work that we are doing continuously.

Most of our evidence comes from:

1. Observations
2. Office calls
3. Farm and home visits
4. Meetings
5. Conversations
6. Discussions
7. Local leader contacts
8. etc.

Informal Studies

This is a systematic way of evaluating phases of our work.

Much of our evidence comes from:

1. Questionnaires filled out at meetings.
2. Mailed questionnaires
3. Report forms filled out by farmers, home-makers, or leaders.
4. Surveys made through local leaders, school children or 4-H Clubs.
5. Commercial dealers such as seed, fertilizer, lumber and commodity dealers.
6. Etc.

Formal Studies

The planning of an extension research project is not a difficult task after one acquires an understanding of the scientific approach to problem solving.

Careful attention to each succeeding step in the evaluation process is vital to make sure that no important step has been overlooked or short-circuited. If one has intimate knowledge of the subject field it is frequently possible to obtain the needed assistance with research techniques from the State Leader of Extension Studies or a member of the Experiment Station Staff experienced in social science research.

The purpose of this course is to help you to be more scientific in day to day observations; to become competent in making informal evaluation studies of your own; and to be an intelligent participant in formal evaluation studies.

Conclusions drawn from anyone of the three groupings of evaluation are worth nothing without the application of scientific method. You will see that the scientific method is a way of accurate thinking which is not only applicable to science but to everyday living.

6. Uses of Evaluation

Although we have discussed many of the uses of evaluation, it may be well to recount these uses by extension agents.

- A. Results. Evaluation helps us to determine the degree to which we are accomplishing that which we set out to do.

- a. How effective extension work has been.
 - b. To what extent have the objectives of the teaching program been effective.
 - c. How much of the plan of work has been accomplished.
 - d. How to establish and use a "bench mark" in measuring progress in our work.
 - e. What improvements are desirable in plans for the year ahead.
- B. Program Planning. Evaluation gives a basis for adjusting the program.
- a. How to judge the effectiveness of program planning procedures.
 - b. What modifications in the planning procedure are desirable.
 - c. Who should take what responsibility in planning.
 - d. How the present program is contributing to the long-time program.
- C. Extension Methods. Evaluation serves as a check on our extension teaching methods.
- a. How to obtain impartial and objective evidence of the effectiveness of various extension methods, including meetings, written materials, radio, result demonstrations, etc.
 - b. Which methods are most effective in what situations and with what people.
- D. Extension Organization. Evaluation serves to appraise the effectiveness of organizational, administrative and supervisory procedures.
- a. What is an effective county extension organization.
 - b. What are the results of certain administrative procedures.
 - c. How can the help of the specialists be distributed more systematically and efficiently to the counties.
 - d. How can supervisors give more effective guidance to county extension work.
 - e. How do extension agents use their time.
- E. Clientele. Evaluation provides information about the people with whom we work.
- a. What are their needs, either those they express and want or those of which they are not aware. What are their interests and what do they want from Extension.
 - b. What individual differences are there - within groups and between groups. What are their customs, taboos, values.
 - c. What kind of community organization is most effective for Extension work under given conditions.
 - d. Where is local leadership succeeding and where is it more needed.
 - e. Which segments of the population are being reached by Extension and which are not.
 - f. Are different extension approaches needed for different segments of the population.
 - g. What do people do as a result of extension; where has extension succeeded or failed, and why?

- F. Reporting. Evaluation provides a report to the public. It provides evidence to the community of the value of the program.
- G. Satisfaction. Evaluating gives satisfaction to the local leaders and extension agents in creating a sense of accomplishment.



